OKLAHOMA GOVERNOR’S WATER CONFERENCE

WATER MEANS BUSINESS – THE USACE ROLE

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The Tulsa District Impact

Tulsa is a high-profile USACE District within Southwestern Division with a robust Navigation, Recreation & Civil Works and Military Construction missions that include:

- 5 Lock & Dams enabling BILLION$ in goods to travel from Oklahoma to the Gulf of Mexico each year
- 1.8 MILLION acres of Public Land
- 2nd Highest Park Visitation in USACE annually
- 38+ active Civil Works Projects
- Army, Air Force, Navy, Veterans Administration & Department of Energy Customers
- 60% of ALL USACE Water Contracts

Tulsa District creates more than $787,000,000 in economic benefits for the region
USACE AUTHORITIES

- Water Resources Development Acts (biannual) – authorizes civil works projects
- Energy and Water Appropriations Acts (annual) – funds civil works programs/projects
- Sec 10 Rivers and Harbors Act, Sec 404, Clean Water Act – authority for Regulatory Program…navigation, placement of dredged materials, wetlands
- Continuing Authorities Program (CAP) – Chief’s authority to execute “small scale” ecosystem, shoreline protection, navigation improvements, etc
- Planning Assistance to States (PAS)
- Request to Alter Federal Projects (Section 408)
- Flood Risk Management Program
- Silver Jackets Program
- Others: Supplementals, Continuing Resolutions
McClellan-Kerr Arkansas River Navigation System (MKARNS)

The MKARNS is a 445-mile waterway that includes the Verdigris, Arkansas and White rivers and connects Oklahoma from the Tulsa Port of Catoosa to the Gulf of Mexico. MKARNS officially was dedicated June 5, 1971, by former President Richard Nixon. The Tulsa Port of Catoosa was dedicated Feb. 20th, 1971 and celebrated 50 years this year.
McClellan-Kerr Arkansas River Navigation System (MKARNS)

MKARNS Fast Facts:

The waterway is managed by the U.S. Army Corps of Engineers and works through a series of 18 locks and dams, five in Oklahoma that allow barges to manage the 420-foot change in elevation over the system.

The MKARNS serves a 12-state region and is designated as Marine Highway 40 by the U.S. Department of Transportation. The MKARNS is the most westerly inland river system in the country, providing an ice-free shipping channel all year. There are two public ports in Oklahoma: the Tulsa Port of Catoosa and the Port of Muskogee, along with other private ports on the system. Ports in Oklahoma process more than six million tons of cargo each year, support more than 11,000 jobs and directly contribute $1.6 billion to the state’s economy. In terms of tonnage, the most shipped goods on the MKARNS in a given year fall into the categories of sand, gravel and rock; chemical fertilizer; iron and steel; and soybeans.

The overall system also helps generate clean energy through hydropower plants, provides flood control and includes key recreational areas for visitors.

- Average of $3.5B of commodities transported to and from ports in Arkansas and Oklahoma annually
- Contributes $8.5B in sales, $289M in taxes and 55,872 jobs
- 18 Lock and Dams with an average age of 55 years
- Maintained channel depth of 9’ with approval to move toward a continuous 12’ depth
- In FY20
  - 20,000 System Lockages occurred
  - 10M Tons of Cargo were transported
  - $250M of Backlog Maintenance was completed
  - 1.8M cubic yards were dredged

MKARNS 2030 Vision Statement:

By 2030, the McClellan—Kerr Arkansas River Navigation System (MKARNS) is an inland navigation system of 18 lock and dams providing a resilient and reliable, 365 days per year navigation system serving a 12-state region encouraging industry investment and economic growth from the Mississippi River to Catoosa, Oklahoma. MKARNS 2030 is a strategic plan for a continuous 12’ deep navigation channel, protection of system infrastructure and channel stability via the Three Rivers Project, and a reset of the reliability of the MKARNS 18 lock and dams to minimize system outages.
Civil Works Strategic Plan: INNOVATIONS
Using USACE Authorities and Stakeholder Engagement

OKLAHOMA COMPREHENSIVE WATER PLAN (OCWP) UPDATE

• **Planning Assistance to States:** Oklahoma Water Resource Board five (5) year agreement to update the OCWP
  - Signed in 2020
  - Phase 1: $1M study for scoping and planning (cost share 50/50)
  - Phase 2: an investigations effort focused on water demand forecasts, WS availability, WS planning model development, and summarization of ground and surface water quality related to M&I supplies
  - Phase 3: focused on using the collected information to assess the states WS resilience and develop/update water management polices and Conceptual model of the OCWP
  - Phase 4 & 5: Roll out of the update and engagement.
Introduction: A New Era for Civil Works in SWD

Building on Strengths

Across the SWD, USACE possesses vital civil works experience and expertise; good relationships with stakeholders and sponsors; and existing capacity for surge that can be leveraged and expanded to meet new challenges. These existing strengths can provide the firm foundation for innovative, integrated new approaches to project planning and execution, but only if the Division understands, anticipates, and plans for future drivers of needs.

**Flood Risk Management**: Over 760 miles of flood protection projects including 74 flood risk reduction reservoirs, which combined protect over $190 billion in public and private assets as of 2019.

**Navigation**: Channels that span over 1,500 miles and carry over 500 million tons of commerce annually, second among USACE Divisions.

**Hydropower**: Hydroelectric power plants that provide energy to over 8 million customers across the region, second among all USACE Divisions.

**Water Supply**: Water storage capacity sufficient to provide over 4 billion gallons of water per day to the public and industry during drought conditions, comprising 75% of total USACE water supply storage.

**Recreation**: Recreational facilities that support 83 million visitors annually, first among all USACE Divisions.

**Regulatory**: Over 6,000 regulatory permit decisions annually for protection of waters and wetlands.

**Environmental Stewardship**: Support over 17 endangered species.
Evolving Risks & Opportunities: Key Drivers

1. Rapid Population Growth & Urbanization
   Rapid rural-urban out-migration combined with natural population growth are driving a population explosion in major metropolitan areas like metro Dallas, Houston, Oklahoma City, and NW Arkansas.

2. A Changing Regional Landscape
   Urbanization, resource demands, extreme weather, and coastal erosion are driving regional land use/cover changes, impacting flood risk, water quality, channel morphology, local water balance, biodiversity, industry & recreation.

3. Extreme Weather: Floods & Drought
   The frequency and intensity of droughts and inland and tropical storms are projected to increase, as are rapid swings between the two weather extremes. Sea level rise and subsidence will increase the risk of coastal flooding.

4. Uncertain Future of Energy
   The region has experienced a recent boom in oil and gas exports, but this boom may not last. Economic downturns and shifts to renewables may reduce global demand, while strained resources and risks to infrastructure may impact supply.

5. Increasing Demand on Water Resources
   Regional water supply is under severe pressure from drought and environmental change. Simultaneously, regional demand is increasing for water resources as well as water-dependent food and energy resources.

6. Aging Infrastructure
   Degradation of water infrastructure conditions across the region pose a threat to a growing population’s safety, exacerbate limited water resources in the context of competing demands, and threaten the vitality of local industries.
A Framework for Action

**GOAL 1:** Enable innovative solutions to complex challenges.

**GOAL 2:** Shift towards a proactive response mode.

**GOAL 3:** Re-envision role as a collaborative partner.

**GOAL 4:** Adaptively manage full lifecycle of water resources infrastructure.

What is Integrated Water Resource Management?

A holistic, coordinated, and cross-sectoral approach to the development and management of water, land, and related resources in order to maximize economic benefits, ecosystem quality, and health and public safety. Achieving IWRM requires a new, more comprehensive approach to Projects, Processes, and Partnerships.

*Find the full report and more at [www.swd.usace.army.mil](http://www.swd.usace.army.mil)*
CIVIL WORKS STRATEGIC PLAN
A proactive, innovative, partnership approach to sustainable integrated water resource management.

1. Partner Participation
2. SWOT & Risk Analysis
3. Determine Risks & Opportunities - How can we prepare now?
   - Rapid Population Growth & Urbanization
   - Changing Regional Landscape
   - Extreme Weather: Floods & Droughts
   - Uncertain Future of Energy
   - Increasing Demand on Water Resources
   - Aging Infrastructure
4. How do the risks impact our mission areas?
5. Understand how the risks affect our partners’ Strategic Plan
6. Determine actions we can take & our partners can take NOW to better prepare us for the future
   - SAFE, SUSTAINABLE, AND RESILIENT WATER FUTURE FOR THE REGION
7. Implement bold, innovative, business & process changes

WE NEED YOU

Find the full report and more at www.swd.usace.army.mil
QUESTIONS